

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
21 May 2004 (21.05.2004)

PCT

(10) International Publication Number  
**WO 2004/041334 A3**

(51) International Patent Classification<sup>7</sup>: **A61M 15/00**

(21) International Application Number:  
PCT/DK2003/000749

(22) International Filing Date:  
1 November 2003 (01.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
PA 2002 01694 4 November 2002 (04.11.2002) DK  
PA 2002 01695 4 November 2002 (04.11.2002) DK  
PA 2003 00429 20 March 2003 (20.03.2003) DK  
PA 2003 01053 11 July 2003 (11.07.2003) DK

(71) Applicant (for all designated States except US): **BANG & OLUFSEN MEDICOM A/S** [DK/DK]; c/o Bang & olufsen Holding A/S, Peter Bangs Vej 15, DK-7600 Struer (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **RASMUSSEN, Jørgen** [DK/DK]; Ydunsvej 6, DK-7600 Struer (DK). **CHRISTRUP, Søren** [DK/DK]; Kirsebærhaven 5, DK-7600 Struer (DK).

(74) Agent: **PATRADE A/S**; Fredens Torv 3A, DK-8000 Aarhus C (DK).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

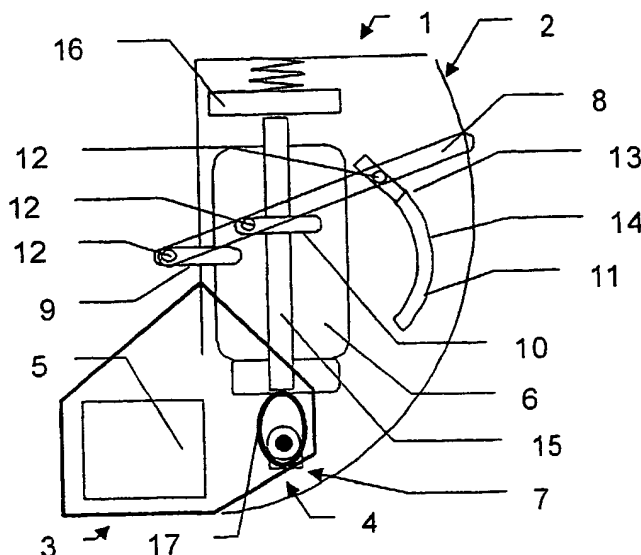
**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
19 August 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEVICE FOR DISPENSION



(57) Abstract: The present invention related to a device for dispensing a medicament from a pressurised canister comprising a mouthpiece, a seat for engagement with the top of the canister and a housing provided with means for guiding and/or holding the canister.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/DK 03/00749

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61M15/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, BIOSIS, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 447 150 A (BACON RAYMOND ET AL) 5 September 1995 (1995-09-05)  column 4, line 8 -column 5, line 52 column 6, line 63 -column 7, line 6; figures 1,2 abstract	1,2, 7-10, 14-16
A	US 2002/157664 A1 (MUSZAK MARTIN ET AL) 31 October 2002 (2002-10-31)  paragraph [0008] paragraph [0020] - paragraph [0021] paragraph [0046] - paragraph [0047]; figures 1,5,8 abstract  --- -/--	1,2, 7-10, 14-16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "g" document member of the same patent family

Date of the actual completion of the international search

24 March 2004

Date of mailing of the international search report

14 JULI 2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

ANNA MALMBERG/MN

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK 03/00749

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 405 727 B1 (HEARNE DAVID JOHN ET AL) 18 June 2002 (2002-06-18)  column 4, line 55 -column 6, line 12 column 7, line 41 - line 65; figures 4,6A-C,13A-C abstract ---	1,2, 7-10, 14-16
A	EP 0 254 391 A (GLAXO GROUP LTD) 27 January 1988 (1988-01-27) abstract; figures 1-8 ---	8-10
E	US 6 672 304 B1 (LEITH FRANK A ET AL) 6 January 2004 (2004-01-06) column 4, line 25 -column 8, line 59; figures 1-2,3A,3B abstract ---	3-16
A	US 5 119 806 A (CHILDERS ALFRED G ET AL) 9 June 1992 (1992-06-09) the whole document ---	3-16
A	WO 99 49916 A (ASTRA PHARMA PROD ;BRUNNBERG LENNART (SE); ANDERSSON MALIN (SE); A) 7 October 1999 (1999-10-07) abstract; figures 4,5 ---	3-16
A	US 5 623 920 A (BRYANT ANDREW M) 29 April 1997 (1997-04-29) the whole document -----	3-16

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/DK 03/00749

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-2, 7-10, 14-16

Claim 1 and claims 2,7-10 and 14-16(dependent on claim 1)  
Inhaler device with means for controlling the input to a dose counting mechanism.

2. Claims: 3-16

Claim 3 and 4-16(claims dependent on claim 3)  
Inhaler device including a cap arranged so that the canister cannot be activated accidentally, a dose counting mechanism and a return blocking function.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/DK 03/00749

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5447150	A	05-09-1995	AP 320 A	01-03-1994
			BG 61027 B1	30-09-1996
			BR 9202048 A	14-12-1993
			CZ 9201625 A3	15-06-1994
			HU 67153 A2	28-02-1995
			IL 100342 A	10-01-1997
			PT 99710 A ,B	30-11-1993
			TR 25963 A	01-11-1993
			AU 644925 B2	23-12-1993
			AU 9034091 A	25-06-1992
			CA 2091367 A1	02-06-1992
			CN 1062091 A	24-06-1992
			DE 69114516 D1	14-12-1995
			DE 69114516 T2	02-05-1996
			EP 0559736 A1	15-09-1993
			ES 2080478 T3	01-02-1996
			FI 931979 A	30-04-1993
			WO 9209323 A1	11-06-1992
			HU 64702 A2	28-02-1994
			IE 914063 A1	03-06-1992
			JP 6503241 T	14-04-1994
			KR 9209443 B1	16-10-1992
			NO 930484 A	11-02-1993
			NZ 240742 A	27-09-1994
			RO 108415 B1	31-05-1994
			SG 67322 A1	21-09-1999
			SK 162592 A3	10-05-1995
			ZA 9109363 A	26-08-1992
			AT 129907 T	15-11-1995
			BG 96390 A	30-12-1993
			CY 1904 A	22-11-1996
			DK 559736 T3	11-12-1995
			GR 3018890 T3	31-05-1996
			HK 114096 A	05-07-1996
			JP 2535297 B2	18-09-1996
-----				
US 2002157664	A1	31-10-2002	US 2002148462 A1	17-10-2002
			WO 03072173 A1	04-09-2003
			WO 02072183 A1	19-09-2002
-----				
US 6405727	B1	18-06-2002	AU 729716 B2	08-02-2001
			AU 7541698 A	11-12-1998
			CA 2290684 A1	26-11-1998
			EP 0984805 A1	15-03-2000
			WO 9852634 A1	26-11-1998
			JP 2001525714 T	11-12-2001
			NZ 500744 A	26-01-2001
-----				
EP 0254391	A	27-01-1988	AU 598250 B2	21-06-1990
			AU 7196287 A	29-10-1987
			CA 1258054 A1	01-08-1989
			DK 209987 A	26-10-1987
			EP 0254391 A1	27-01-1988
			FI 871799 A	26-10-1987
			GB 2191032 A ,B	02-12-1987
			JP 63035265 A	15-02-1988
			NO 871709 A	26-10-1987
			NZ 220082 A	06-01-1989

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/DK 03/00749

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0254391	A	US 4817822 A ZA 8702924 A	04-04-1989 30-12-1987
US 6672304	B1 06-01-2004	US 6357442 B1 US 5826571 A US 2002100472 A1 AU 1215900 A WO 0024443 A1 EP 1019125 A1 WO 9906091 A1	19-03-2002 27-10-1998 01-08-2002 15-05-2000 04-05-2000 19-07-2000 11-02-1999
US 5119806	A 09-06-1992	AT 398374 B BE 1003512 A5 CH 677348 A5 DK 544888 A FI 884493 A ,B, KR 131082 B1 NO 884342 A PH 27169 A PT 88725 A ,B US 5031610 A ZA 8807467 A AT 242488 A AU 605295 B2 AU 1606088 A BR 8802287 A CA 1311170 C DE 3816276 A1 DE 8806288 U1 ES 2008482 A6 FR 2615106 A1 GB 2204799 A ,B IN 171518 A1 IT 1219937 B JP 1046471 A JP 2845887 B2 MX 167894 B NL 8801239 A ,B, NZ 224579 A SE 466385 B SE 8803461 A	25-11-1994 14-04-1992 15-05-1991 30-03-1990 31-03-1990 11-04-1998 02-04-1990 02-04-1993 30-04-1990 16-07-1991 28-06-1989 15-04-1994 10-01-1991 17-11-1988 13-12-1988 08-12-1992 24-11-1988 15-09-1988 16-07-1989 18-11-1988 23-11-1988 31-10-1992 24-05-1990 20-02-1989 13-01-1999 21-04-1993 01-12-1988 26-04-1990 10-02-1992 30-03-1990
WO 9949916	A 07-10-1999	AU 3351899 A CN 1295487 T EP 1073491 A1 WO 9949916 A1 US 2002073992 A1	18-10-1999 16-05-2001 07-02-2001 07-10-1999 20-06-2002
US 5623920	A 29-04-1997	DE 69304333 D1 DE 69304333 T2 EP 0650452 A1 WO 9401347 A1	02-10-1996 27-03-1997 03-05-1995 20-01-1994